PC SMS Gateway Server4.4

User Manual

SMSgee.com Software

12/23/2014

Version 4.4.2

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1 Introduction

1.1 What is PC SMS Gateway Server

- The PC SMS Gateway Server is software for sending SMS using GSM Device, support using multiple GSM Devices simultaneously.
- The PC SMS Gateway Server have easy to use Graphical User Interface(GUI) to managing SMS and managing the GSM Devices.
- The PC SMS Gateway Server store SMS on RDBMS Database, provide flexible headroom for handling large number of SMS.

1.2 How PC SMS Gateway Server Works?

- SMSgee sending SMS from PC using connected GSM Device (GSM Phone / Modem / USB 3G Modem)
- The GSM Device should have GSM SIM card with SMS subcription
- The cost of SMS is as is sending SMS from the mobile phone, because the SMS is send like the way the mobile phone sending SMS
- The PC SMS Gateway Server is only provide the 'software', the GSM Device & SIM Card is not included.

2 Getting started

2.1 Requirement

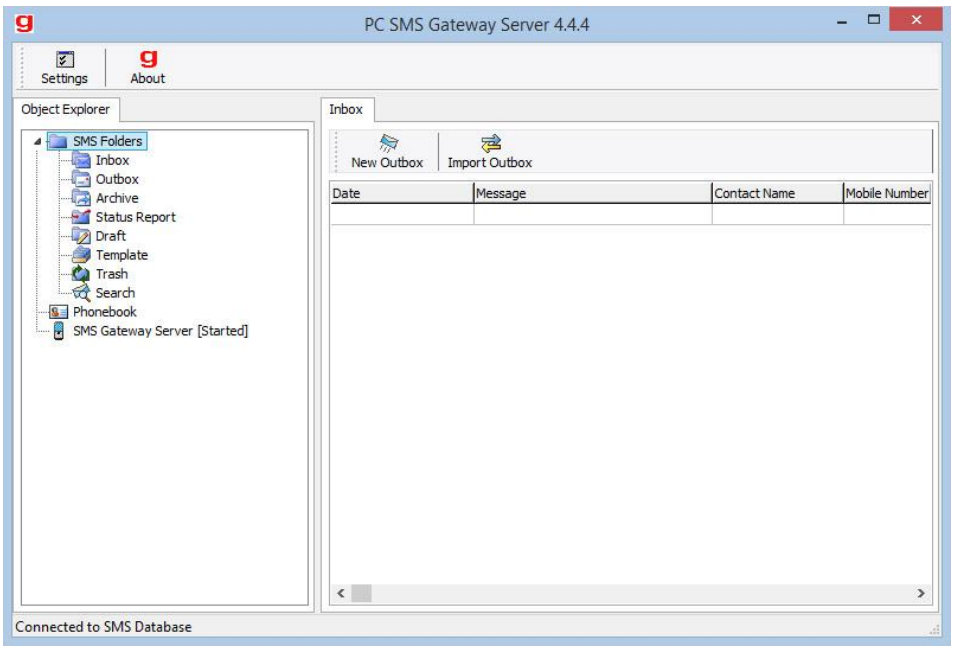
- The detailed Requirement for hardware and software available on Appendix 1 PC SMS Gateway Server Requirement

2.2 Installing the software

1. Getting the Installer:
    a. Trial Version(latest) could be downloaed from : http://www.smsgee.com/smsgatewayserver4.zip
    b. The Full Version installer of the latest version please contact to SMSgee's support email support@smsgee.com
2. Run the installer
    a. The Windows user account should have superuser/admin access, the SMSgee software require access to HKEY_LOCAL_MACHINE (HKLM)
    b. The installer in ZIP file, extract and run the "setup *.exe" file, follow the instruction on the installer.
3. Activating the Full version
    a. The License is attached to the GSM Device IMEI Number, in order to activate the License the GSM Device with IMEI Number should be Connected to PC SMS Gateway Server and Started

2.3 Running the Software

- TheGraphical User Interface (GUI) executable file is "smsgatewayserver.exe", this file is located in the installation folder

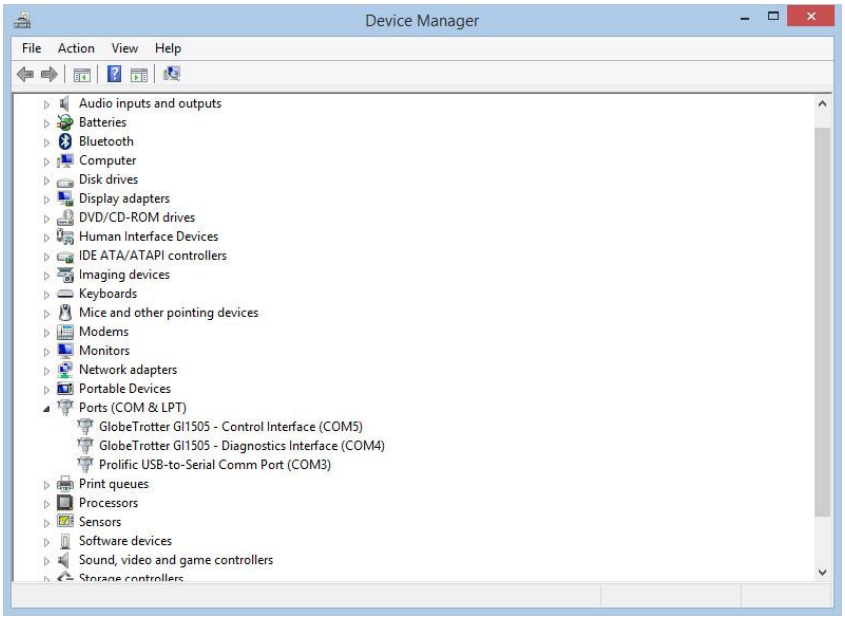


Picture 2-1 PC SMS Gateway Server 4.4 GUI

2.4 Setup GSM Device

2.4.1 Preparing the GSM Device

- The GSM Device connected to PC should using one of this connection :
  - RS-232
  - USB
  - Bluetooth
- The PC SMS Gateway Server “communicating” with the “GSM Devices” through the “serial ports”, the GSM Device should be seen as COM Port (The list of Device which have COM Port connection could be seen in the Device Manager>>Ports)



Picture 2-2 Ports(COM & LPT) on Device Manager

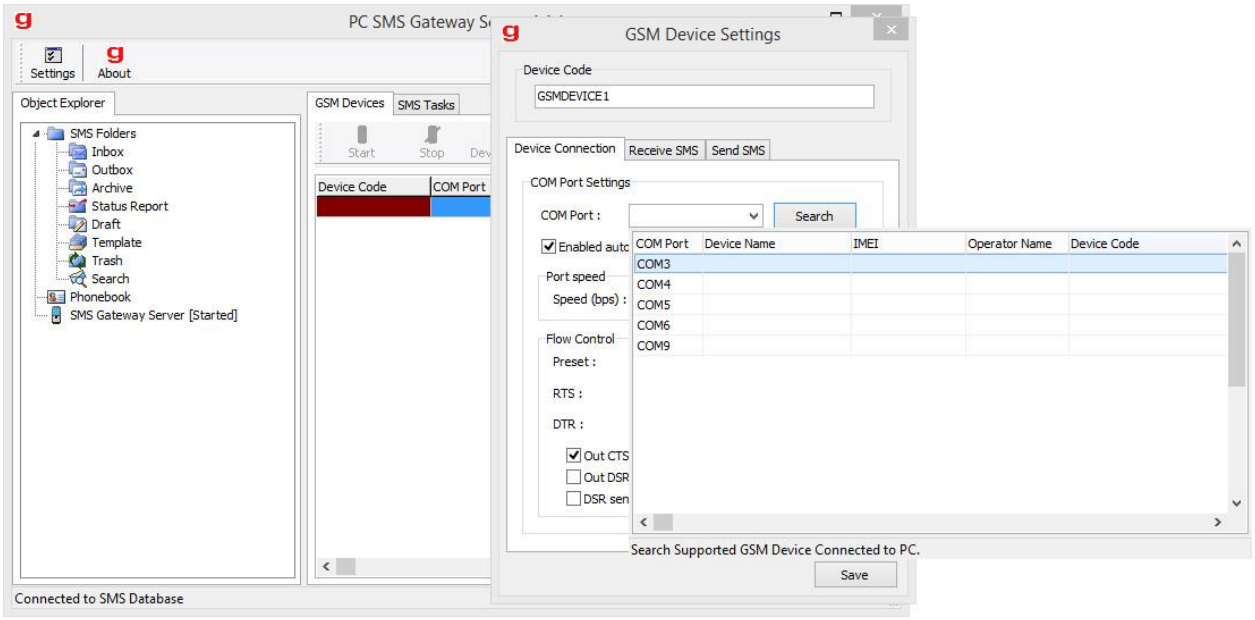
2.4.2 Preparing the SIM Card

- The GSM SIM Card should have SMS Subcription
- The SIM PIN on the GSM SIM Card should be disabled

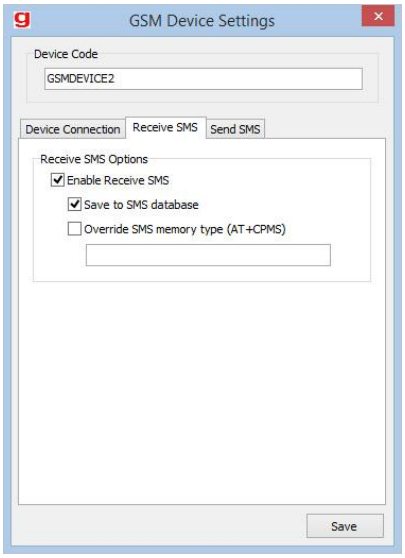
2.5 Connecting GSM Device to PC SMS Gateway Server

- The PC SMS Gateway Server communicating with the GSM Devices through the serial ports (COM Ports) , to use the functionality of the GSM Devices which have been properly setup on theDevice Manager>>Ports, the COM Port should be add as “GSM Devices” on the “PC SMS Gateway Server”
- The step to add the GSM Devices in the PC SMS Gateway Server :
  1. In the PC SMS Gateway Server GUI, select “SMS Gateway Server” on the “Object Explorer” to view the GSM Devices page
  2. On the “GSM Devices” page Click “Add” to add the new “ GSM Device Settings”
  3. On the “GSM Device Settings” select the COM Port, or click Search to detect the GSM Devices. Then click save to save the settings and applying the changed to the GSM Device Settings.

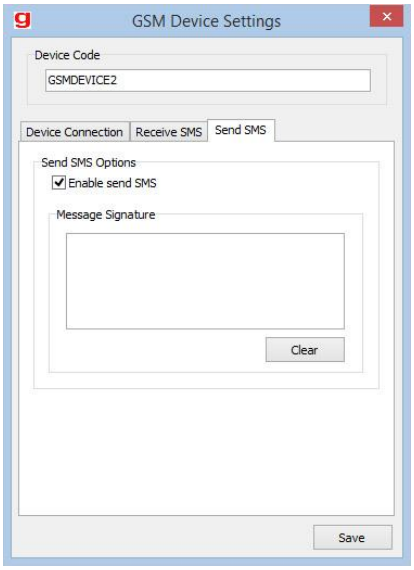
4. To set the GSM Device to Receive SMS On the “Receive SMS” tab, set the “Enable Receive SMS” to Enabled
5. To set the GSM Device to Send SMS On the “Receive SMS” tab, set the “Enable Send SMS” to Enabled
6. The GSM Device which have been created will be shown in the GSM Devices List



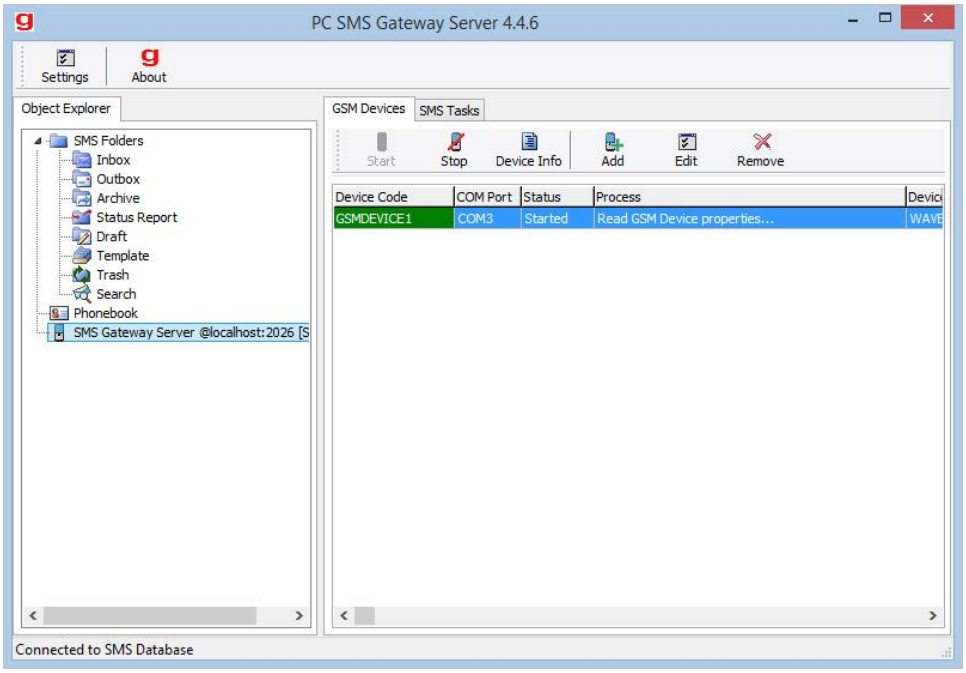
Picture 2-3 Performing Search Supported GSM Devices



Picture 2-4 GSM Device Settings - Receive SMS



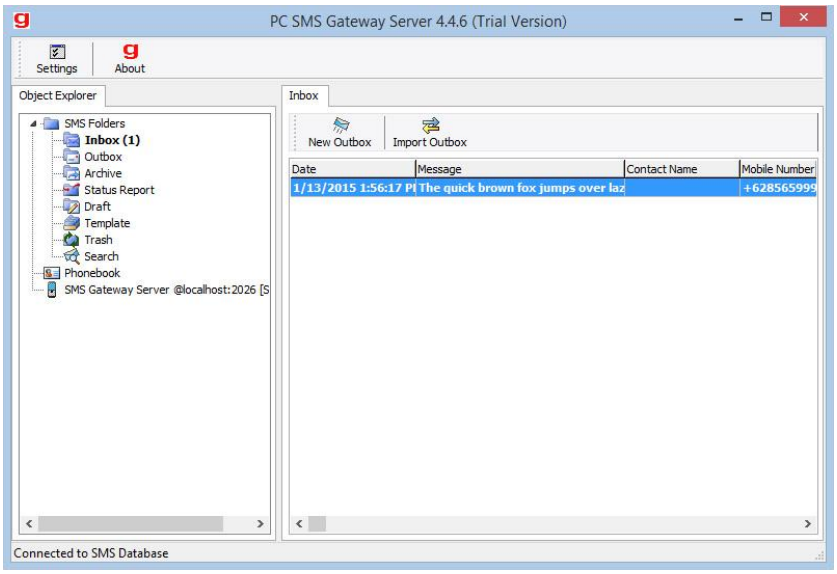
Picture 2-5 GSM Device Settings - Send SMS



Picture 2-6 GSM Devices list

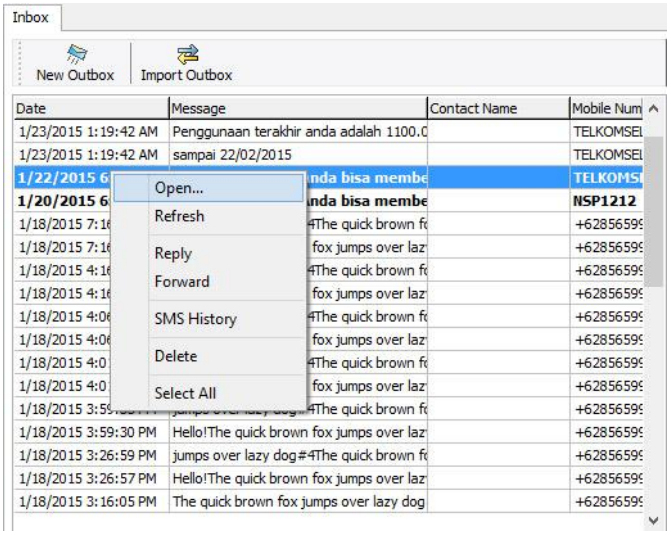
3 GUI Basic Operation

3.1 Receiving SMS (Inbox)



Picture 3-1 Inbox Page

- Inbox is the received SMS
- The SMS received on the GSM Devices will shows up in the Inbox if the "Enabled Receive SMS" options on the GSM Device Settings is enabled and also the GSM Device is Started
- To view the received SMS go to the Inbox Page, on the Object Explorer select Inbox on the SMS Folder



Picture 3-2 SMS Inbox Right Click Menu

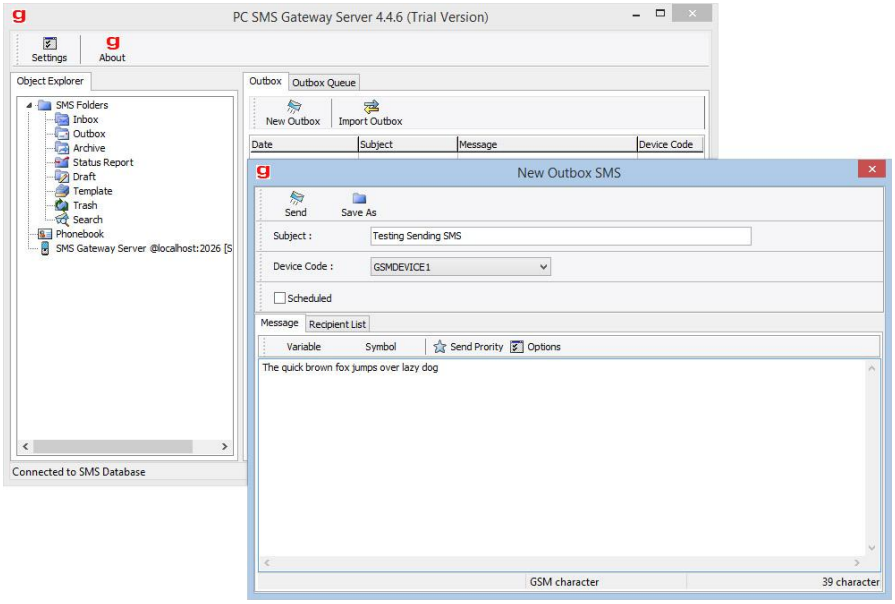
- Open SMS:
  - Double click the Message on the Grid to view the Detailed SMS
  - Or right click on the SMS Grid and select "Open ..."
- Reply SMS
  - Select the SMS on the SMS grid then right click and select "Reply ...", the "New Outbox SMS" with replied number form will shows up.

- Forward SMS
  - Select the SMS on the SMS grid then right click and select “Forward ...”, the “New Outbox SMS” with forwared message form will shows up.

- Deleting SMS
  - Select the SMS on the SMS grid then right click and select “Delete ...”

3.2 Sending SMS (Outbox)

- Outbox is the SMS that are queued to be sent
- To make the GSM Device sending SMS the “Enable Send SMS” should be enabled in GSM Device Settings



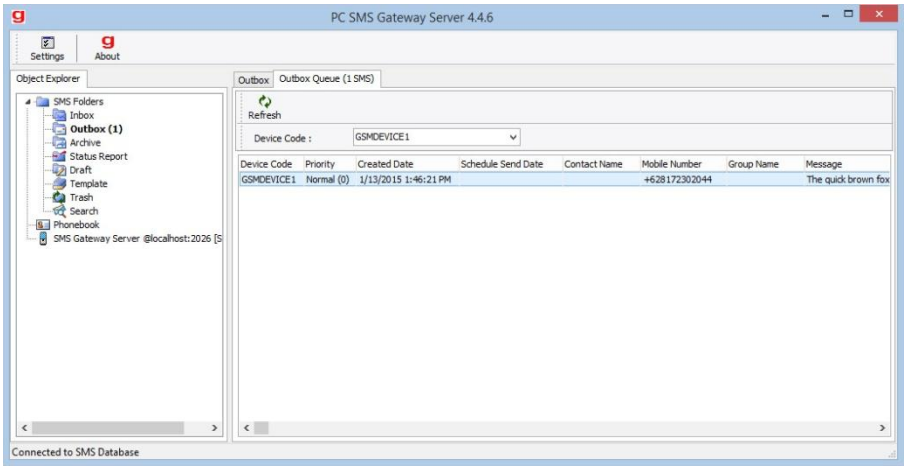
Picture 3-3 Create New SMS Outbox

- To create Outbox click “New Outbox” tool Button to shows up the “New SMS Outbox” Form. The “New Outbox” tool Button could be found on the SMS Folder Page (Inbox, Outbox , Archive, Status Report, Draft, Template, Trash)
  - Field on the Form “New Outbox SMS” :
    - Subject (optional) : This field used only for archiving purpose only not will be included on the SMS message
    - Device Code (required) : This field determine which GSM Device is used for sending the SMS
    - Scheduled (optional) : This field determine when the SMS Outbox will be queued on the Outbox Queue.
    - The “Message” tab
      - Send Priority
      - Options
        - Flash SMS :
          - When Flash SMS is enabled, the SMS Message will be displayed directly on the recipient handset.
          - On some Mobile Phone the Flash SMS will not be saved into Inbox.

- Long SMS :
  - If the long SMS enabled, the Message longer than one SMS the message will be splitted to several SMS
  - If the long SMS disabled, if the Message longer than one SMS, the message will be cut only one SMS.
- Use Variable :
  - When Variable tag is used, the “Use Variable options” should be enabled.
- Character Set Encoding :
  - Some language has alphabet which could not be sent using the GSM Character Encoding, then it should be send using the Unicode(UCS2) Character Encoding.
  - Only Auto and Unicode (UCS2) are could be selected.
    - If the auto selected , the application will determine which Character Encoding should be used.
    - If the Unicode (UCS2) is selected, the SMS always will be sent in Unicode(UCS2) encoding.
    - The maximal charater for one SMS for Character Encoding
      - GSM - 7 bit : 160 character
      - Byte (ASCII) – 8 bit : 140 chracter
      - Unicode (UCS2) : 70 character
- Delivery Report
- Request Reply

- The “Recipient List” tab
  - Recipient List (required)

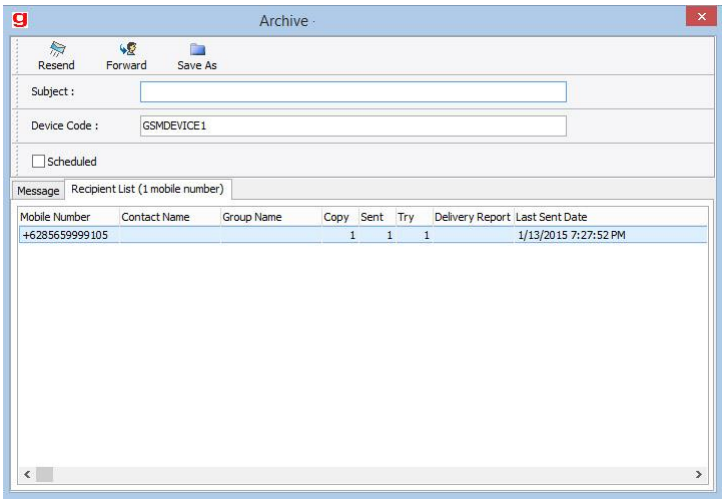
- When the Send button is clicked on the New SMS will be saved to the Outbox, except some required field os left blank there will be Notification about the Required Field to be filled in.
- The progress on Sending SMS could be viewed on the Recipient List Outbox Log on SMS Archive/SMS Outbox
- To view the Queued Outbox SMS go to the Outbox Page, on the Object Explorer select Outbox in the SMS Folder and then select The Outbox Queue Tab.



Picture 3-4 SMS Outbox Queue

3.3 Open SMS Outbox/Archive

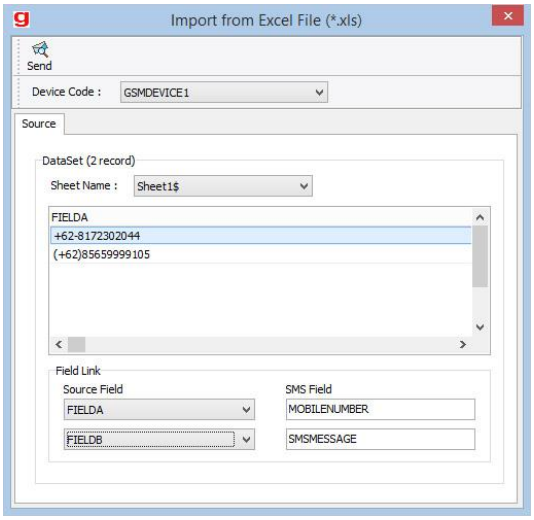
- The SMS Outbox that has been created but not sent yet stored on Outbox Folder
- To open SMS Outbox go to Object Explorer and select Outbox Folder
- The SMS Outbox that has been Seen stored on Archive Folder
- To open SMS Archive go to Object Explorer and select Archive Folder
- After the SMS Outbox/Archive opened, to view the SMS sending progress could be seen on Recipient List tab



- **Picture 3-5 Recipient List Outbox Log on SMS Archive/SMS Outbox**

3.3.1 Importing New SMS Outbox

1. The New SMS Outbox also could be created by using the data from the MS Excel (*.xls) files or Database (MS Access, MS SQL Server, Oracle, MySQL)

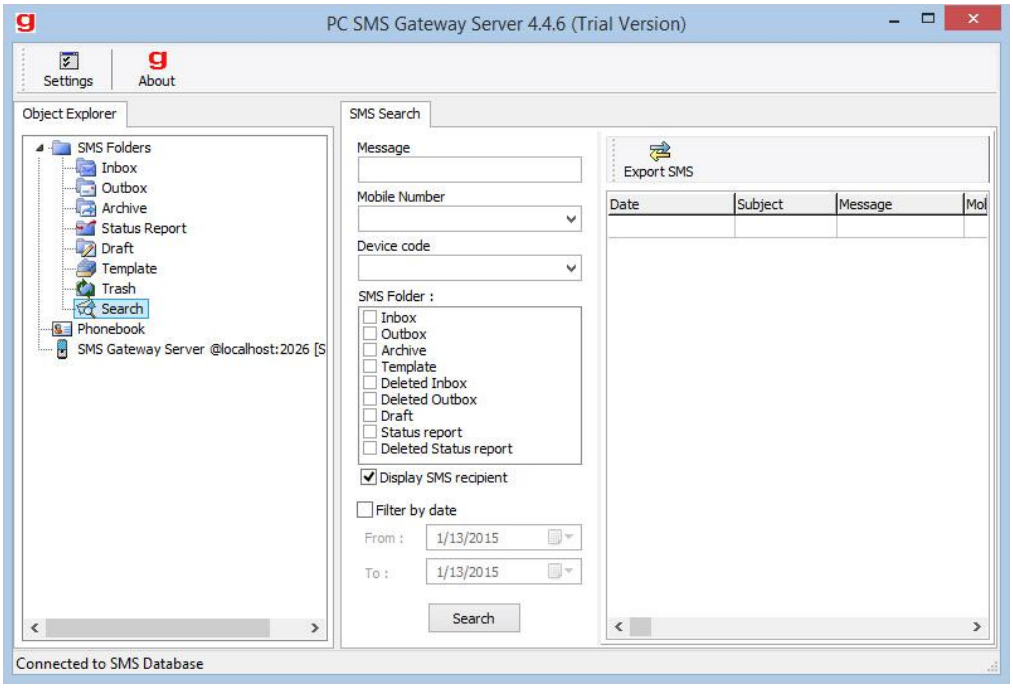


Picture 3-6 Import SMS

2. To Import the SMS Outbox from MS Excel (*.xls) file :
    - Open the SMS Outbox Page
    - Click “Import Outbox” tool Button and select “From file (MS Excel *.xls)...”. after the “Open Dialog” forms is shows up Select the MS Excel (*.xls) file.
    - After the form Import Outbox “Import from Excel (*.xls)” is shows up , select the Sheet by selecting the “Sheet Name”
    - After the Sheet is selected the Field Link should be set to link between the Field Link on the Sheet and the SMS Outbox, select the “Source Field” which corresponded to the “SMS Field”
    - Click “Send” to create new SMS Outbox
3. To Import the SMS from Database:
    - Open the SMS Outbox Page
    - Click “Import Outbox” tool Button and select “From Database...”. The “Import Outbox” tool Button could be accessed from Inbox Page or the Outbox Page
    - After the “Data Link Properties” is shows up:
        - Setup the Database connection Settings by selecting the “OLE DB Provider(s)” on the “Provider” tab and click “Next>>” to fill the detailed settings of the connection.
        - After the Connection Settings is filled, Click OK to Connect to the Database
        - If Connection to the database is successfull the Form “Import from Database” will shows up.
    - After the form Import Outbox “Import from Database is shows up , select the Table by selecting the “Table Name”
    - After the Table is selected the Field Link should be set to link bet ween the Field Link on the Table and the SMS Outbox, select the “Source Field” which corresponded to the “SMS Field”
    - Click “Send” to create new SMS Outbox

3.4 Search SMS

- The SMS on SMS Folder could be searched on “SMS Search”
- To open “SMS Search”, go to Object Explorer >> SMS Folder >> SMS Search



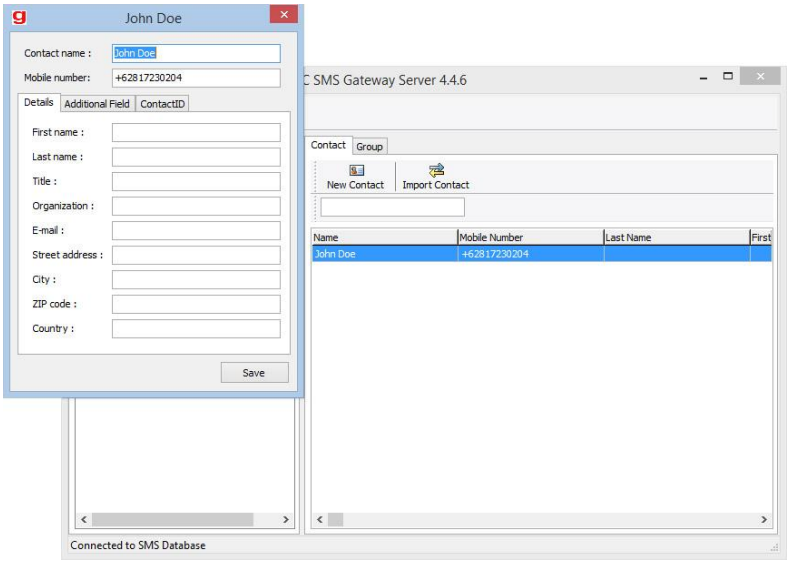
Picture 3-7 Search SMS

- The search criteria :
  - Message (optional)
  - Mobile Number (optional)
  - Device Code (optional)
  - SMS Folder (required)
  - SMS Date (optional)
- Click “Search” to perform SMS Search

3.5 Managing Phonebook

3.5.1 Managing Contact

- Contact is the list to correspond between the Mobile Number with the Contact Data (Name, Organization, Address, etc)

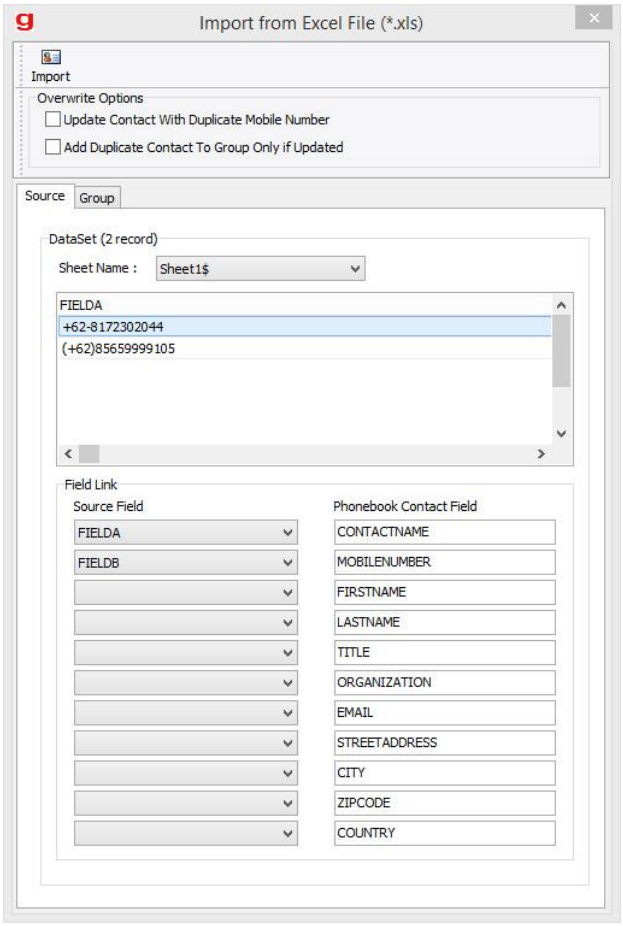


Picture 3-8 Create New Contact

- The constraint for the contact is the mobilenumber couldn't be duplicated, one mobile number only could be used by one contact.
- To acces the Contact Page :
  - Select "Phonebook" on the Object Explorer
  - Select Contact Tab
- Creating New Contact
  - Click "New Contact" tol button on the Contact Page
  - After the new Contact Form is shows up , fill the Contactname and the Mobilenumber which is required field, another field is optional.
- Open Contact
  - Select a contact and then double click the Contact Grid
  - or Select a contact and then right click on the Contact Grid and Select "Open..."
- Delete Contact
  - Select some contact and then right click on the Contact Grid and Select "Delete..."

3.5.1.1 Importing Contact

- The Contact also could be created by using the data from the MS Excel (*.xls)

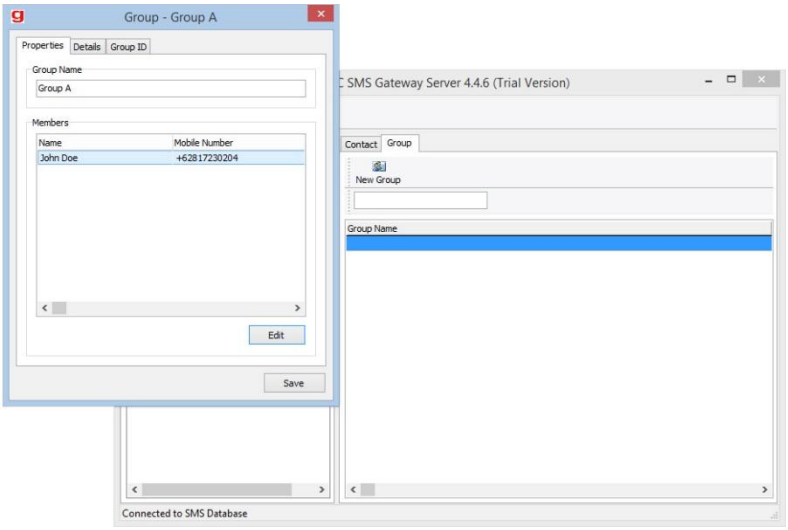


Picture 3-9 Import Contact

- To perform importing Contact from MS Excel (*.xls) file:
  - Open Contact Page
  - Click “Import Contact” tool Button and select “From file (MS Excel *.xls)...”., after the “Open Dialog” forms is shows up Select the MS Excel (*.xls) file.
  - After the form Import Contact “Import from Excel (*.xls)” is shows up , select the Sheet by selecting the “Sheet Name”
  - After the Sheet is selected the Field Link should be set to link between the Field Link on the Sheet and the Contact, select the “Source Field” which corresponded to the “Contact Field”
  - If the Imported Contact would be added to Some Group(s), select the Group in the “Group” tab.
  - Click “Import” to perform import Contact.

3.5.2 Managing Group

- Group is the list of Contact(s)



Picture 3-10 Phonebook Group

- To acces the Group Page :
  - Select “Phonebook” on the Object Explorer
  - Select Group Tab
- Creating New Group
  - Click “New Contact” tool button on the Contact Page
  - After the new Group Form is shows up , fill the Groupname which is the only required field, another field is optional.
  - Click Edit to Edit Contact List (Group Member)
- Open Group
  - Double click on the Group Grid
  - or Right click on the Contact Grid and Select “Open...”
- Delete Group
  - Right click on the Group Grid and Select “Delete...”

4 Advanced Operation

4.1 Database Setup

- The default SQL database included on the SMSgee PC SMS Gateway Server installer are MS Access
- The connection between the application and the database using ADO Connection
- For any other purpose Beside the default SQL database, another SQL Database supported for SMSgee PC SMS Gateway Server are :
    - MS Access (The default database is MS Access 2003)
    - MS SQL Server/Express (version 9 / SQL Server 2005 or newer
    - MySQL(InnoDB) version 5 or newer
    - Oracle version 9 or newer
- The SQL Table script for creating tables and indexes is available on the installer, the file is located on the installation directory on folder **DB Table Script**
- The available Database table Script are :
    - MS SQL Server/Express (Version 2005 or newer SQLscript)
    - Oracle (Version 9 or newer SQL script)
    - MySQL (Version 5 or newer SQL script)

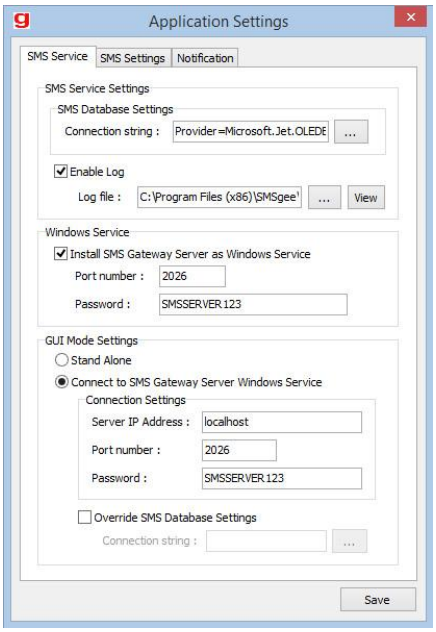
4.2 Running as Windows Service

4.2.1 Introduction

- The SMSgee PC SMS Gateway Server also could be running as Windows Service
- When running as windows service, there are three components of the application :
  1. PC SMS Gateway Server Windows Service :
     - The Windows Service is receiving command from GUI
     - The Windows Service connect to GSM Device and perform receive and send SMS
  2. PC SMS Gateway - GUI :
     - The GUI connect to windows service
     - The GUI read Inbox and write Outbox directly to the database
  3. SMS Database :
     - The SMS Windows Service and GUI connect to SMS Database using ADO Connection.

4.2.2 Setting Running as Windows Service

1. Open "Application Settings"
2. Select the "SMS Gateway Server" Tab.



Picture 4-1 SMS Service on Application Settings

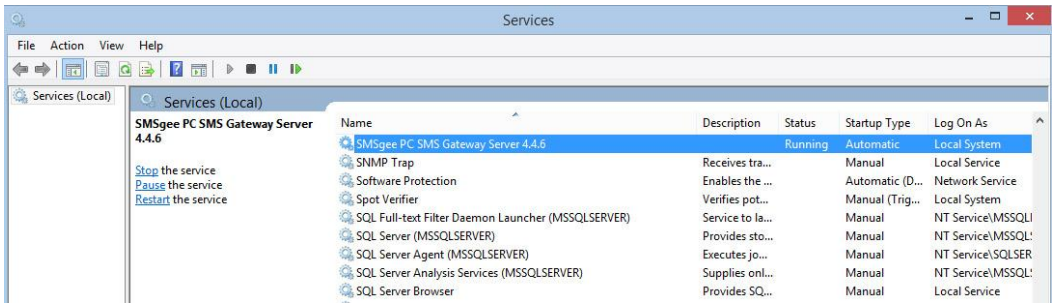
3. Installing PC SMS gateway Server Windows Service on localhost.

   a. Checked "Install SMS Gateway Server as Windows Service" checkbox.
   b. Port Number is TCP Port number of PC SMS Gateway Server Windows Service. TP Port could be changed to any unused TCP port number.
   c. Password could be changed (ASCII character only)

4. GUI settings to connect Windows Service :

a. Set "SMS Server Host" IP address with the PC SMS Gateway Server Windows Service IP number
    a) If the GUI and the Windows Service is on same PC set to 'localhost' or ‘127.0.0.1’
b. Set Port Number and Password of the PC SMS Gateway Server Windows Service.
    a) Port Number and Password should be match with the "PC SMS Gateway Server Windows Service - Service" on previous step.

5. Click save to save and apply changes
6. If the Windows Service has been installed there will be SMSgee PC SMS Gateway Server 4.4 on Services



Picture 4-2 SMSgee PC SMS Gatway Server Services

4.3 SMS Task

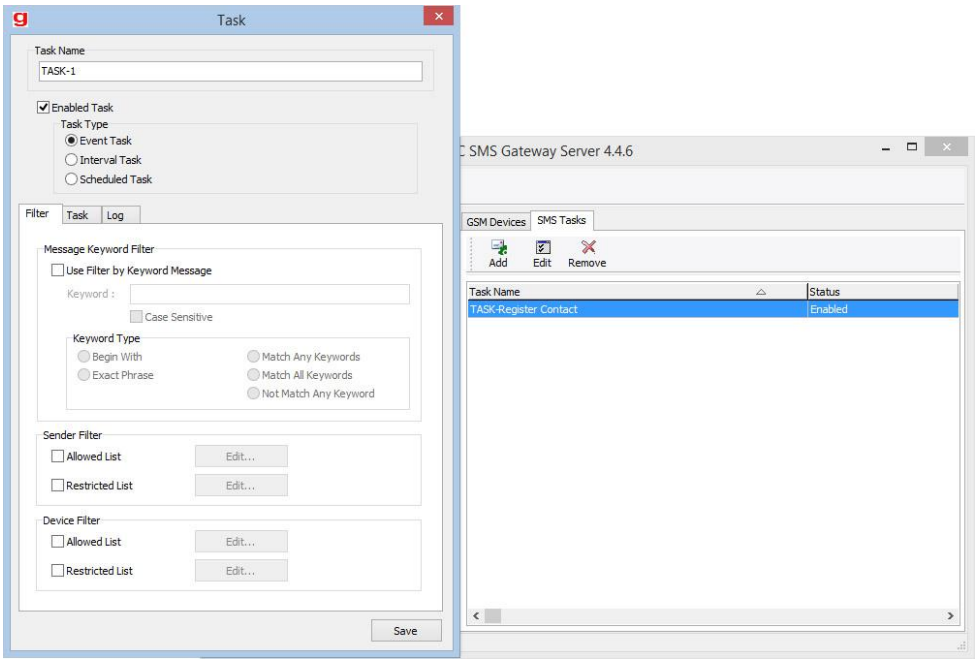
- SMS Task is automated Task to Send SMS and/or Execute the SQL Script

4.3.1 Event Task

- Event Task is Task SMS Task which is triggered when the SMS is Received
- Event task could be filtered by some SMS criteria . If the Event Task is not filtered, all received SMS will be triggered the Event Task
- The filter for Event Task :
  - SMS Filter based on SMS Message Content (optional)
  - SMS Filter based on SMS Sender Number (optional)
  - SMS Filter based on GSM Devices which receive the SMS (optional)

4.3.1.1 Create Event Task

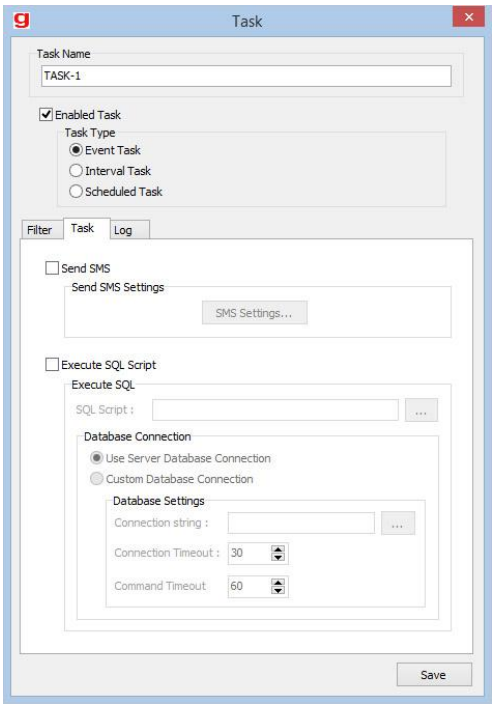
- To create Event Task go To SMS Object Explorer and select SMS Gateway Server
- Select the "SMS Tasks" tab
- After the form Task opened, checked the Enabled Task and select" Event Task" in Task Type



Picture 4-3 Create Event Task

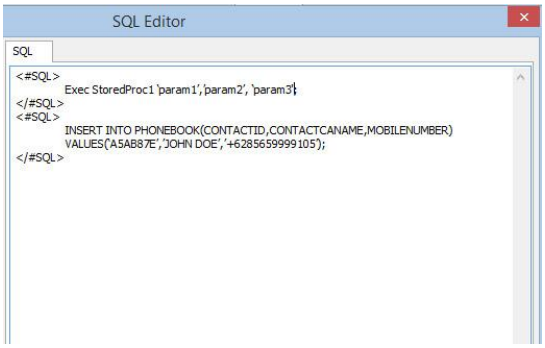
- On the "Filter" tab Select the filter to be applied
  - Message Keyword Filter
    - Keyword
    - Keyword Type
      - Begin With
      - Exact phrase
      - Match Any Keywords
      - Match All Keywords

- Not Match Any Keywords
  - Sender Filter
  - Device Filter



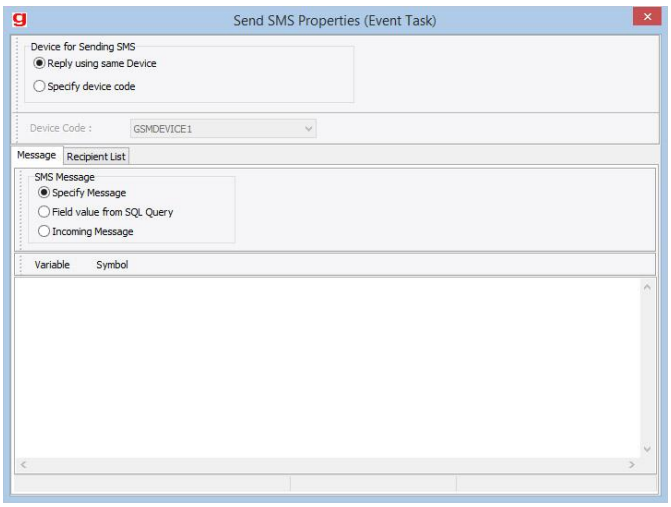
Picture 4-4 Task Settings

- On “Task” tab , set Task to enabled
  - Send SMS
    - Click SMS Settings to open Send SMS Settings
      - Device for Sending SMS
      - SMS Message
        - Specify Message
        - Field Value from SQL Query
        - Incoming Message
      - Recipient List
        - Send to SMS Sender
        - Recipient List
  - Execute SQL Script
    - SQL Script could be Stored Procedure , Function or Any SQL Statement
    - When using multiple statement, each statement should be wrapped with the <#SQL> <SQL Statement> </#SQL>, for example :

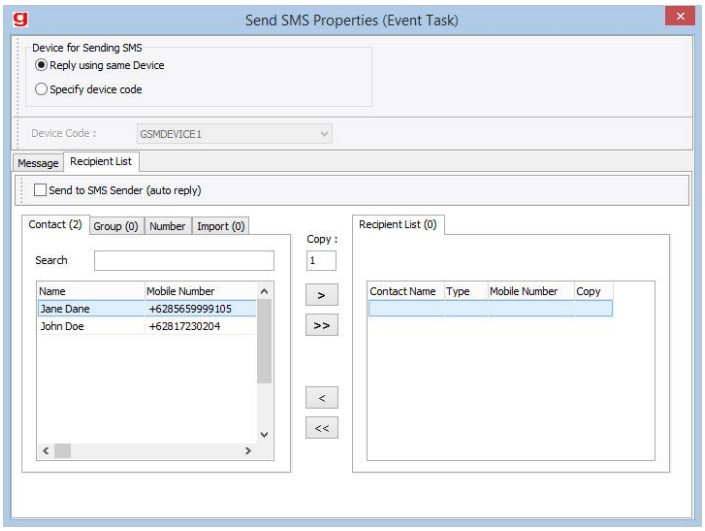


Picture 4-5 Example using <#SQL> </#SQL> for multiple SQL Statement

- Click the box on the right of SQL Script to Open SQL Editor



Picture 4-6 Send SMS Settings (Event Task), Message Tab



Picture 4-7 Send SMS Settings (Event task), Recipient List Tab

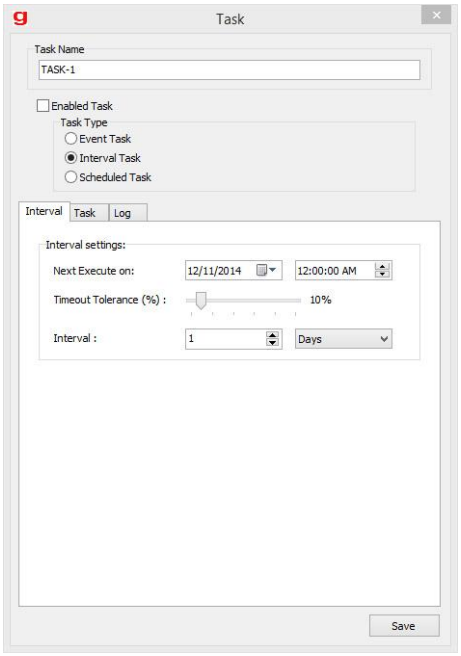
4.3.2 Interval Task

- Interval task is SMS Task which executed on specified Interval

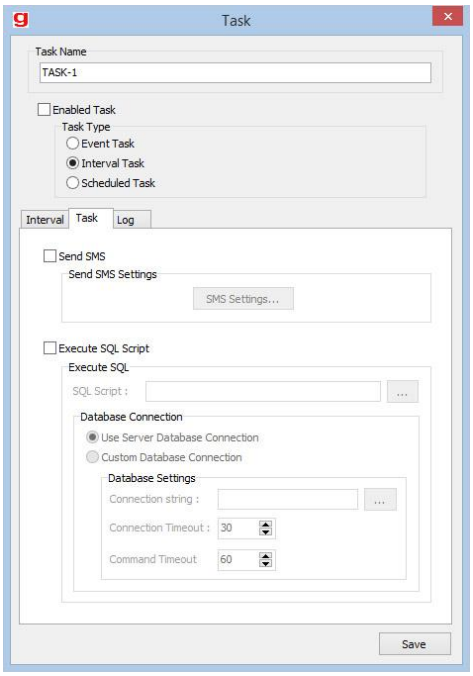
4.3.2.1 Create Interval Task

- To create Event Task go To SMS Object Explorer and select SMS Gateway Server
- Select the “SMS Tasks” tab
- After the form Task opened, checked the Enabled Task and select”Interval Task” in Task Type
- Interval Settings :
  - Next Execute On : Time when the next cycle that the task will be executed
  - Timeout Tolerance: Maximum late tolerance after Executed time
  - Interval : The interval cycle on the task
- “Task “ Settings tab
  - Send SMS
    - Click SMS Settings to open Send SMS Settings
      - Device for Sending SMS
      - SMS Message
        - Specify Message
        - Field Value from SQL Query
      - Recipient List
        - Recipient List
  - Execute SQL Script
    - SQL Script could be Stored Procedure , Function or Any SQL Statement
    - When using multiple statement, each statement should be wrapped with the <#SQL> <SQL Statement> </#SQL>, for example :

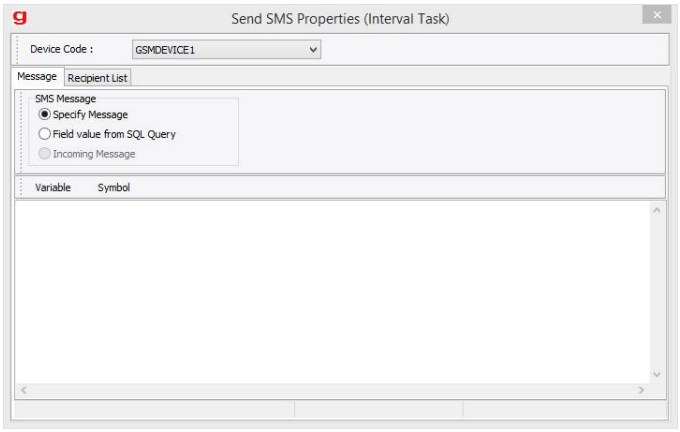
<#SQL>
Exec StoredProc1 ‘param1’,’param2’, ‘param3;
</#SQL>
<#SQL>
INSERT INTO PHONEBOOK(CONTACTID,CONTACTCANAME,MOBILENUMBER)
VALUES(‘A5AB87E’,’JOHN DOE’,’+6285659999105’);
</#SQL>



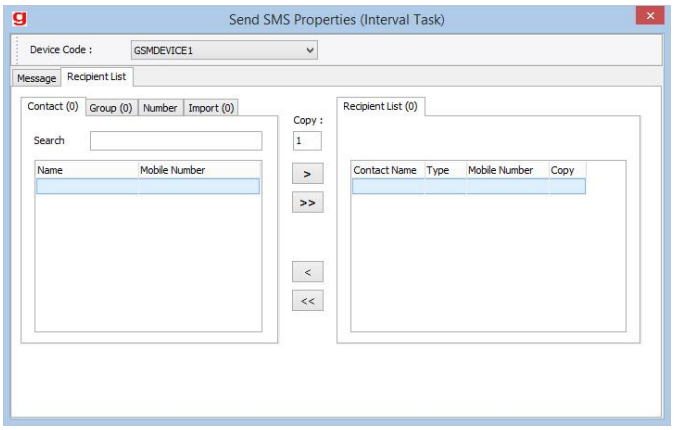
Picture 4-8 Interval Task - Interval Settings



Picture 4-9 Interval Task - Task Settings



Picture 4-10 Interval Task - SMS Settings - Message



Picture 4-11 Interval Task - SMS Settings - Recipient List

4.3.3 Scheduled Task

- Scheduled task is SMS Task which executed on specified Interval

Appendix 1 : PC SMS Gateway Server Requirement

- **Operating System**
  - Windows Desktop class :
    - Windows 2000 or later
  - Windows Server class :
    - Windows 2000 Server or later

- **PC Hardware Requirement**
  - CPU :
    - 1000 MHz Processor (minimal)
  - RAM : 1024MB RAM (minimal)
  - Harddisk Space: 20MB harddisk space for initial installation. The harddisk space dynamically increase/decrease depend on SMS number on INBOX/OUTBOX

- **GSM Device**
  - The GSM Device requirement is available on Appendix 2 Supported GSM Device
  - GSM SIM Card with active SMS subscription.

- **Supported RDBMS Database**
  - MS Access
    - The default installer database is using MS Access database
    - The MS Access application doesn't necessary installed
  - MS SQL Server/SQL Server Express 2005 or later
  - My SQL version 5 or later and ODBC connector version
  - Oracle 9 or later

Appendix 2 : Supported GSM Device

- The SMSgee software perform **auto detect** whether the connected device is supported.
- The GSM Device supported by SMSgee application is Device which **Support Send SMS in PDU Mode** and **Support Load Inbox in PDU Mode**.
- The list below is only the reference. We haven't test all device , simply if tdevice is not listed in this supported device list, just connect with the SMSgee software and it will automatically detect whether the device is supported.
- The UMTS/GSM Device could be external device connected to PC using serial port (RS 232), USB, Infra Red(IrDA),Bluetooth or internal device (usually found on Netbook/UMPC)
- **Recommended UMTS/GSM modem**
  For 24/7 SMS server we only recommend "Industrial Grade GSM Modem" :
  - sierra wireless (formerly wavecom) fastrack series modem
  - i-tegno usb/serial port modem,
  - siemens serial port modem (e.g Siemens MC55, TC65)
  - Another brand which use Wavecom or Siemens Chipset
  - **Some UMTS/GSM phone or 3G USB Dongle is also supported but not for 24/7 use, because often hang or disconnected.**
    - Some tested and supported USB Dongle GSM Device :
      - Option
        - Icon 505
        - Icon 515
      - Huawei
        - K3565
        - E173
        - E220
        - E510

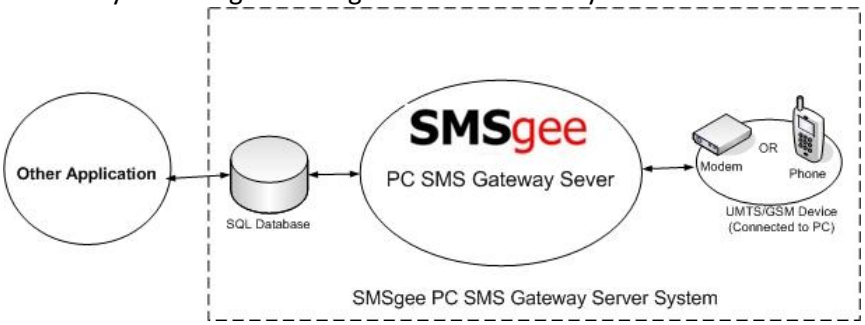
Appendix 3 : Integrating SMS with other application (Reading Inbox and WritingOutbox Directly onDatabase)

- **Contents**

1. Introduction
2. Integrating PC SMS Gateway Server by Accessing SQL Database
2.1 Introduction
2.2 Receiving SMS
2.2.1 Introduction
2.2.2 Inbox Table Fields
2.2.3 Read Non Long SMS from Inbox Table
2.2.4 Read Long SMS from Inbox Table
2.3 Sending SMS
2.3.1 Introduction
2.3.2 Outbox Table Fields
2.3.3 Sending SMS Using Default Parameter
2.3.4 Sending SMS Using Custom Parameter

1. Introduction

- This Software Development Kit (SDK) purpose is to explain about one of very useful feature from the SMSgee PC SMS Gateway Server which is capable to integrated with other application.
- The SMSgee PC SMS Gateway Server store SMS data on SQL Database, to integrate with another application, so they can use the SMSgee PC SMS Gateway Server SMS capabilities, is by accessing the SMSgee PC SMS Gateway Server database.



***Picture 1**. SMSgee PC SMS Gateway Server System*

Chapter 2 Explain about preparing SQL Database for SMSgee PC SMS Gateway Server.
Chapter 3 Explanation about integrating SMSgee PC SMS Gateway Server with other application.

2. Integrating PC SMS Gateway Server by Accessing SQL Database

2.1. Introduction

- The SMSgee PC SMS Gateway Server store SMS data on SQL Database, integrated by another application is by accessing the SMSgee PC SMS Gateway Server database.
- For ensuring Date Time compability across database, the SMSgee PC SMS Gateway Server store the Date Time in Double data type (e.g: INBOX.SMSTIMESTAMP, INBOX.RECEIVEDDATE, OUTBOXMASTER.CREATEDDATE, OUTBOXMASTER.LASTSENTDATE, OUTBOXLOG.CREATEDDATE, OUTBOXLOG.MODIFIEDDATE).
- The SMSgee PC SMS Gateway Server Date Time begin from December, 30 1899 00.00 , means the Date Time value is the day passed since 30 Desember 1899.For example, 1 day is valued 1, and time is the fraction part. For example, the value of 1.5 means December, 31 1899 12:00 (mid day)

2.2. Receiving SMS

2.2.1. Introduction

- The SMSgee PC SMS Gateway Server store received SMS in **INBOX** table. When other application need to read the received SMS could be done by accessing the **INBOX** table.

2.2.2. INBOX table fields

- Each records on **INBOX** table holds one **PDU**. A non long SMS only consist of one part or one PDU. A long SMS consist of multiple part or multiple PDU, the SMS property that linked the part of long SMS are **UDHI** and **MESSAGEREF**.
- The INBOX table fields are,

Field Name	Field Type	Field Length	Description
INBOXID	VARCHAR	60	Table Primary Key
PDU	VARCHAR	1000	SMS Packet Data Unite(PDU).
SMSMESSAGE	VARCHAR	170	SMS Message
UDHI	VARCHAR	160	SMS UDHI
MESSAGEREF	VARCHAR	160	SMS Message Ref
ANUMBER	VARCHAR	160	SMS Sender Number
SMSC	VARCHAR	160	SMS Centre Sender Number
SMSCTIMESTAMP	DOUBLE		Originated SMS Centre time stamp
RECEIVEDDATE	DOUBLE		Application time stamp when the SMS inserted to Database
SMSSTATUS	INTEGER		Application flag wheter SMS has been read. 0 is unread and 1 is read.
SMSTYPE	INTEGER		Application flag of SMS type. 0=Received Inbox SMS, 4=deleted Received Inbox SMS , 7=status report, 8=deleted status report
DEVICECODE	VARCHAR	60	Device Code that receive the SMS

FLASHSMS	INTEGER		SMS flag, whether the SMS is flash SMS. 0=non flash SMS and 1= flash SMS
LONGSMS	INTEGER		SMS flag, whether the SMS is Long SMS. 0=non long SMS and 1=long SMS
REQUESTREPLY	INTEGER		SMS flag, whether the SMS is Request Reply. 0=non request reply and 1=request reply.
CHARENCODING	INTEGER		SMS character encoding type. 0=GSM Alphabet(7Bit), 1=Octet(8 bit), 2=Ucs2(16 bit), 3=Unknown
IMSI	VARCHAR	160	International Mobile Subscriber Identity(IMSI) Number of Device Code that receive the SMS

2.2.3. Read non Long SMS from INBOX Table

- Non long SMS are SMS which message length are less than 160 character and sent using single PDU.
- The example of SQL Script for reading received Inbox non long SMS are :

SELECT * FROM INBOX WHERE SMSTYPE=0

2.2.4. Read Long SMS from INBOX Table

- Long SMS are SMS which message length are more than 160 character and sent using multiple **PDU** part. The SMS property that linked long SMS are **UDHI** and **MESSAGEREF**.
- The example of SQL Script for reading received Inbox long SMS are,
    - **Step 1**. Select a record (a part) of long SMS from the table.

SELECT * FROM INBOX WHERE SMSTYPE=0 AND LONGSMS=1

- **Step 2**. Using MESSAGEREF and UDHI value from a part of long SMS, then read all part of the SMS

SELECT * FROM INBOX
WHERE SMSTYPE=0
AND LONGSMS=1
***AND MESSAGEREF='*[MESSAGEREF_OF_SMS]'**
AND UDHI LIKE '*[UDHI_SUBSTRING_LENGTH_WITHOUT_LAST_TWO_CHARACTER]*%'
***AND ANUMBER='*[ANUMBER]'**

For example :

if UDHI='050003370201', then
UDHI_SUBSTRING_LENGTH_WITHOUT_LAST_TWO_CHARACTER='0500033702',
and Messageref ='OD',
and ANUMBER='+6281320573350'

then the SQL script will be ,

SELECT * FROM INBOX WHERE SMSTYPE=0 AND LONGSMS=1 AND MESSAGEREF='OD' AND UDHI LIKE '0500033702%' AND ANUMBER='+6281320573350'

2.3. Sending SMS

2.3.1. Introduction

- The SMSgee PC SMS Gateway Server store Outbox SMS in **OUTBOXMASTER, OUTBOXRECIPIENT** and **OUTBOXLOG** table.
- To send SMS from other application could be done by inserting the Outbox SMS record in **OUTBOXMASTER** and **OUTBOXRECIPIENT** table, and read the log whether the SMS has been successfully sent (to SMS centre) could be done by acessing **OUTBOXLOG** table.

2.3.2. OUTBOX Tables Fields

- **OUTBOXMASTER** table store the SMS parameter value,
- **OUTBOXRECIPIENT** table store the recipient list, and **OUTBOXLOG** store the SMS log whether has been sent (to SMS centre).
- **OUTBOXMASTER** table field description are :

Field Name	Field Type	Field Length	Not Null	Description
OUTBOXID	VARCHAR	60	yes	Table Primary Key
SUBJECT	SUBJECT		no	SMS Subject, for archiving purpose only and will not displayed on SMS message.
SMSMESSAGE	TEXT/MEMO or VARCHAR(2000)		no	SMS Message
FLASHSMS	INTEGER		no	SMS flag whether the SMS is flash SMS. 0=Non Flash SMS(default), 1=Flash SMS
LONGSMS	INTEGER		no	SMS flag whether the SMS is Force non Long SMS or auto detect. 0=Force non Long SMS , 1=Auto detect(default)
CREATEDDATE	DOUBLE		yes	TimeStamp when the record is inserted
SMSTYPE	INTEGER		yes	SMS Type flag. 1=Outbox, 2=Archive, 3=Template, 5=DeletedOutbox, 6=Draft
CHARENCODING	INTEGER		no	SMS character encoding type. 0=GSM Alphabet-7Bit, 1=Octet-8bit, 2=Ucs2-16 bit, 3=Auto Detect(default)
PRIORITY	INTEGER		yes	SMS Outbox Send Priority -2=Lowest, -1=Lower, 0=Normal, 1=Higher, 2=Highest
MAXRETRY	INTEGER		yes	Maximum Retry attemp to send SMS to SMS centre. Default value is 3
DEVICECODE	VARCHAR	60	yes	DeviceCode used for Sending SMS
SMSSTATUS	INTEGER		yes	Application flag wheter SMS has been read. 0=unread, 1=read.

USEVARIABLE	INTEGER		no	SMS flag whether the SMS Using Variable Tag (Mail Merge like feature). 0=Disable, 1=Enabled(default)
LASTSENTDATE	DOUBLE		no	N/A(Not applicable) for compability only
USECUSTOMSMSC	INTEGER		no	SMS flag whether the SMS using custom SMSC(SMS Centre) Number. 0=Disable(default) , 1=Enabled
CUSTOMSMSCNUMBER	VARCHAR	160	no	SMSC(SMS Centre) Number used if USECUSTOMSMSC is set with 1
STATUSREQUEST	INTEGER		no	SMS flag whether the SMS is request Status Report. 0=Disable(default), 1=Enabled
REQUESTREPLY	INTEGER		no	SMS flag whether the SMS is request Repl. =Disable(default), 1=Enabled
VALIDITYPERIOD	INTEGER		no	SMS validity period. The default value 169 (3 day)
SCHEDULEDSENT	INTEGER		yes	Flag whether SMS Send on specified date and time . 0=Disable, 1=Enabled
SCHEDULE	DOUBLE		no	Date and Time if SCHEDULEDSENT set with 1

- **OUTBOXRECIPIENT** table field description are :

Field Name	Field Type	Field Length	Description
OUTBOXRECIPIENTID	VARCHAR	60	Table Primary Key
OUTBOXID	VARCHAR	60	Foreign Key (OUTBOXMASTER primary key)
COPY	INTEGER		SMS copy.
RECIPIENT	VARCHAR	160	SMS Recipient.
RECIPIENTTYPE	INTEGER		SMS Recipient type. 0=Mobile Number, 1= Contact ID from PHONEBOOK table, 2=Contact ID from CONTACTGROUP table

- **OUTBOXLOG** table field description are :

Field Name	Field Type	Field Length	Description
OUTBOXRECIPIENTID	VARCHAR	60	Foreign Key (OUTBOXRECIPIENT Table Primary Key)
CONTACTID	VARCHAR	160	SMS Recipient.
SENT	INTEGER		Number of SMS that has been sent.
RETRY	INTEGER		Retry attemp to send SMS

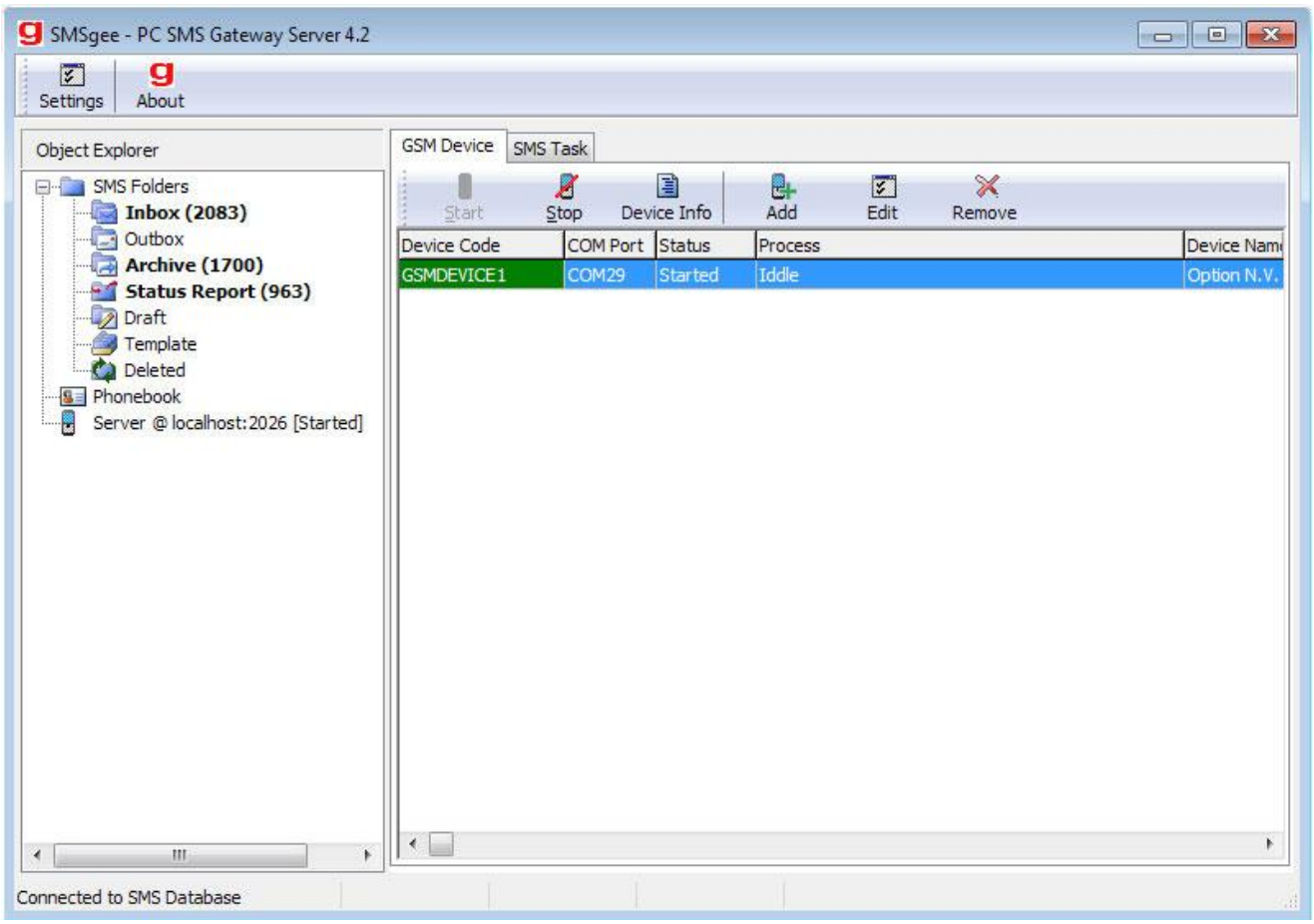
BNUMBER	VARCHAR	160	SMS Recipient mobile number
SMSMESSAGE	TEXT/MEMO or VARCHAR(2000)		SMS Message
CREATEDDATE	DOUBLE		Timestamp when the record is inserted
MODIFIEDDATE	DOUBLE		Last timestamp when the record is inserted or updated
DELIVERYREPORT	INTEGER		N/A(not applicable)
MESSAGEREF	INTEGER		N/A(not applicable)

2.3.3. Sending SMS Using Default Parameter

- This example demonstrate how to Send SMS using PC SMS Gateway Server by inserting SMS Outbox Record into Database using SMS default parameter, which means leave nullable table fields with NULL value, then later when the application read the record will be intepreted as default value.

Prequisities

- Make sure you have done the Device Settings, and have Device Code named "GSMDEVICE1" as described on Picture 3.



Picture 3. Device

STEP 1 Insert SMS Outbox record into database. (follow step accoding to the Database used)

2.3.3.1. Using MS SQL Server Database

Notes:

- In the example below the PC SMS Gateway Server SQL Database is using the **MS SQL Server 2005**
- The table field ***Date*** data type of the PC SMS Gateway Server is stored in database as **Double** data type. The application **Date** data type start from 0 as **December, 30 1899**.
- The **MS SQL Server 2000** database ***Date*** data type start from 0 as **January, 1 1900**. The value converting is needing, this is could be done by after the **GETDATE()** is casted to ***float***, it should be add with 2(two) to compensate the difference date start value.
- The **MS Access** database ***Date*** data type start from 0 as **December, 30 1899** so no compensating value is necessary when using **MS Acces** database.

```
/* Example D.1 Create Outbox Recipient */

/* Create Recipient by Mobile Number */
INSERT INTO OUTBOXRECIPIENT(OUTBOXRECIPIENTID,OUTBOXID,RECIPIENT,RECIPIENTTYPE,COPY) VALUES('R1','OUTBOX1','+628388744713',0,1);
INSERT INTO OUTBOXRECIPIENT(OUTBOXRECIPIENTID,OUTBOXID,RECIPIENT,RECIPIENTTYPE,COPY) VALUES('R2','OUTBOX1','+628996028540',0,1);

/*Example D.2 Create Outbox Master */
INSERT INTO OUTBOXMASTER(OUTBOXID,SMSMESSAGE,CREATEDDATE,SMSTYPE,PRIORITY,MAXRETRY,DEVICECODE,SMSSTATUS,SCHEDULEDSENT,LONGSMS)
VALUES('OUTBOX1','Sending SMS using SMS Gateway Server',CAST(GETDATE() AS FLOAT)+2,1,0,3,'GSMDEVICE1',0,0,1);
```

2.3.3.2. Using MySQL Database

- In the example below the PC SMS Gateway Server SQL Database is using the **MySQL 5.x**
- The table field ***Date*** data type of the PC SMS Gateway Server is stored in database as **Double** data type. The application **Date** data type start from 0 as **December, 30 1899**.

```
/* Example D.1 Create Outbox Recipient */;
/* Create Recipient by Mobile Number */;
INSERT INTO
OUTBOXRECIPIENT(OUTBOXRECIPIENTID,OUTBOXID,RECIPIENT,RECIPIENTTYPE,COPY)
VALUES('R1','OUTBOX1','+628388744713',0,1);
INSERT INTO
OUTBOXRECIPIENT(OUTBOXRECIPIENTID,OUTBOXID,RECIPIENT,RECIPIENTTYPE,COPY)
VALUES('R2','OUTBOX1','+628996028540',0,1);

/* Example D.2 Create Outbox Master */;
INSERT INTO
OUTBOXMASTER(OUTBOXID,SMSMESSAGE,CREATEDDATE,SMSTYPE,PRIORITY,MAXRETRY,DEVICE
CODE,SMSSTATUS,SCHEDULEDSENT,LONGSMS)
VALUES('OUTBOX1','Sending SMS using SMS Gateway
Server',DATEDIFF(CURRENT_TIMESTAMP,FROM_DAYS(693959))+ ( TIME_TO_SEC(
TIMEDIFF(TIME(SYSDATE()), MAKETIME(0,0,0))) / 86400  ),1,0,3,'GSMDEVICE1',0,0,1);
```

2.3.3.3. Using MS Access Database

- In the example below the PC SMS Gateway Server SQL Database is using MS Access

- The table field ***Date*** data type of the PC SMS Gateway Server is stored in database as **Double** data type. The application **Date** data type start from 0 as **December, 30 1899**.

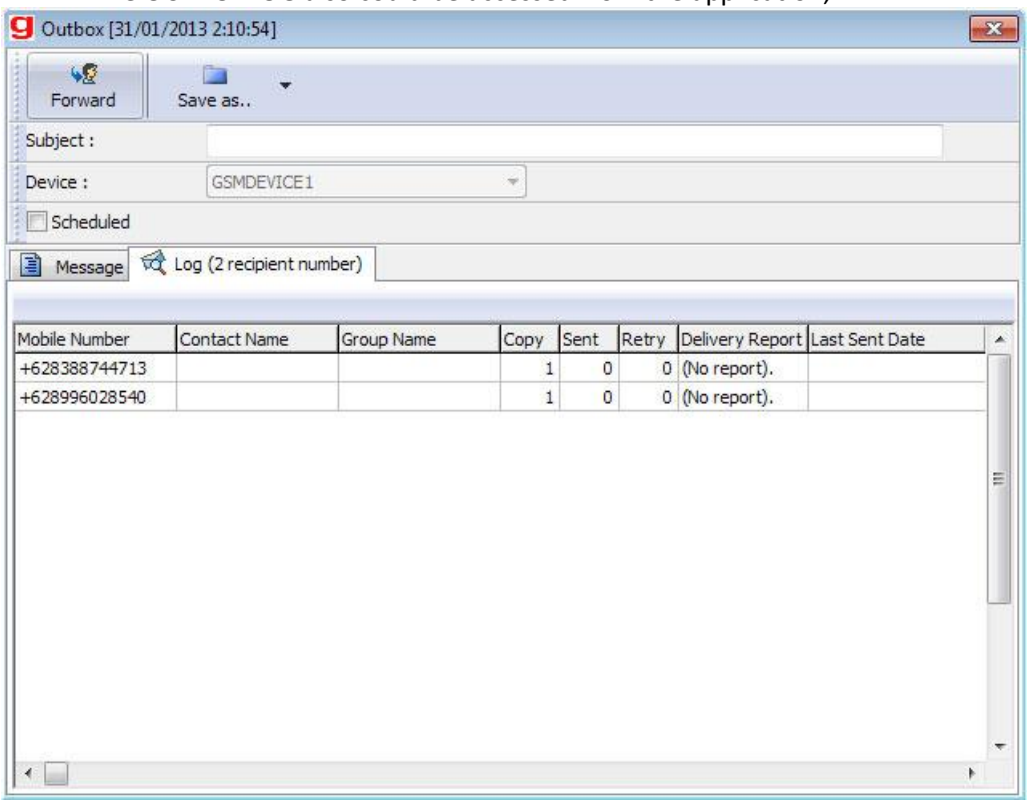
```
/* Example D.1 Create Outbox Recipient */;
/* Create Recipient by Mobile Number */;
INSERT INTO
OUTBOXRECIPIENT(OUTBOXRECIPIENTID,OUTBOXID,RECIPIENT,RECIPIENTTYPE,COPY)
VALUES('R1','OUTBOX1','+628388744713',0,1);
INSERT INTO
OUTBOXRECIPIENT(OUTBOXRECIPIENTID,OUTBOXID,RECIPIENT,RECIPIENTTYPE,COPY)
VALUES('R2','OUTBOX1','+628996028540',0,1);

/* Example D.2 Create Outbox Master */;
INSERT INTO
OUTBOXMASTER(OUTBOXID,SMSMESSAGE,CREATEDDATE,SMSTYPE,PRIORITY,MAXRETRY,DEVICE
CODE,SMSSTATUS,SCHEDULEDSENT,LONGSMS)
VALUES('OUTBOX1','Sending SMS using SMS Gateway Server',now(),1,0,3,'GSMDEVICE1',0,0,1);
```

STEP.2 Check whether the SMS has been successfully sent (to SMS centre), by accessing OUTBOXLOG table.

- The SQL script for reading OUTBOXLOG for checking whether the SMS has been sent are:

```
SELECT * FROM OUTBOXLOG INNER JOIN OUTBOXRECIPIENT ON
OUTBOXRECIPIENT.OUTBOXRECIPIENTID=OUTBOXLOG.OUTBOXRECIPIENTID WHERE
OUTBOXRECIPIENT.OUTBOXID='OUTBOX1'
```

- The OUTBOXLOG also could be accessed from the application,



Picture 4. Outboxlog: Check whether SMS has been sent.

2.3.4. Sending SMS Using Custom Parameter

- Sending SMS with custom value according to the purpose, the custom value description could be found on **OUTBOXMASTER table field** description.